Integrative Web Sites for Disease Management Program Evaluation

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Background. Research Triangle Institute (RTI) is offering integrated developmental, logistical support, data management and analytical services to clients in support of their infectious and chronic disease programs. The overall objective of these programs is to help individuals affected by these diseases to better understand and manage their condition(s). The anticipated outcomes of these efforts include: better patient functional status and productivity (i.e., lower disease impact at home and at work); improved patient satisfaction and quality of life; and more appropriate (and likely lower) use of health care resources, in particular emergency room and inpatient care.

The activities in support of these programs include tasks ranging from patient enrollment; study materials management and distribution; data collection, processing, and management; and data analysis; to conduct of special, *ad hoc* analyses and study reporting. As a way to link and monitor these various, dynamic events, an integrative web site system was developed, consisting of RTI's Fully Integrated Control System (FICS), Window's NT 4.0 Server, and WebSite Pro Web Server.

HIP System. The Healthcare Intervention Programs System was developed by applying standard monitoring, control and data management procedures developed over many years of survey and clinical trials data management. A particular focus for the system was the need to identify initiating events and their accompanying and anticipated, sequelae, following an established time line. It was also imperative that we mark specific events as signals for subsequent activities, which would be monitored and updated, as they occurred.

System Usage. The HIP System is used by all groups involved with the disease management programs, including various groups from the client-- marketing, development, implementation, disease management, information technology, clinical data management, statistics, and medical. From time to time, as needed, other client contractors involved in the same project also use the system. Access to particular areas of the system is gained by WebSite Pro username/password security. Limitations to different system areas are defined by user need and program requirements. Automation of various features underscored the different components of the system's usage. For example: administrative reports (text and graphical), database tabulations and data download are all available from the web pages. Reports and data are updated daily. *Ad hoc* queries may also be posed through the web browser.

On-Site Demonstration. Accompanying this poster presentation is a demonstration using a laptop computer, configured with various highlights of the HIP System. We will show the interested viewer the pathways for a site corresponding to a particular disease management program. Through this demonstration, the viewer will gain an insight into the linkages between program components, tracking modalities, and example project reports. The viewer will also be able to download data to the local machine for additional processing and reporting.

Proposed Evaluation. To date, the HIP System has supported three major disease management program evaluation projects simultaneously. It is estimated that the number of individual users to be approximately 20-30. To evaluate the effectiveness and usefulness of this system, we plan to conduct an electronic survey of all identified users regarding: reason(s) for use; frequency and duration of use; perceived usefulness of system; and feedback on problems encountered and areas for modification/improvement. Another aspect to the system's evaluation will include the identification of significant project milestones and their association to how the system facilitated or hindered their occurrence.

Conclusions. The HIP System serves as an integrative project management and communications tool for various multi-task disease management program evaluation activities. In this capacity, it assists in the support of the critical infrastructures for disease management programs in different therapeutic areas.